



## **Weekly Summary Report**

### **USEPA Oversight, Sauget Area 1, Sauget, IL**

### **WA No. 239-RSBD-054V / Contract No. 68-W6-0025**

**Week Ending Friday, October 7, 2005**

This report summarizes the Remedial Investigation/Feasibility Study (RI/FS) fieldwork conducted by Monsanto, Solutia, and their contractors from October 3, 2005, through October 7, 2005 at Sauget Area 1 (SA1) Sites. The current RI/FS work consists of a Supplemental Dense Non-aqueous Phase Liquid (DNAPL) Characterization and Remediation Study (Supplemental DNAPL Investigation). The original DNAPL Characterization and Remediation Study (DNAPL Investigation) was conducted in 2004. CH2M HILL provided field oversight on one day during the week.

## **Contractors Onsite**

- Groundwater Services Inc. (GSI) (consultant/contractor to Monsanto/Solutia)
- Golder Associates (consultant for Monsanto/Solutia)
- COLOG (division of Layne Western and subcontractor for GSI)

## **Work Performed This Week**

GSI and COLOG were onsite on Wednesday, October 5, to perform the down-hole survey of well BR-I, at Site I.

### **Down-hole survey of BR-I**

COLOG, a division of Layne Western, and GSI conducted a down-well camera survey at well BR-I. COLOG performed 5 different down-hole surveys consisting of the following:

- 1) camera survey using an Optical Televiewer (360 degree view of well),
- 2) camera survey using a traditional camera,
- 3) conductivity and temperature test of fluid in well,
- 4) internal diameter measurements of well using caliper, and
- 5) an acoustic survey.

The results of the first survey (360 degree camera) showed a black, oily substance at approximately 115 feet below ground surface (bgs). The picture was clear and the inside of the well until this depth, at which point the picture transitioned to black. The results of the second survey (traditional camera survey) verified the presence of a black liquid at 115 feet. The well casing was visible from ground surface to approximately 115 feet bgs on both camera surveys, and indicated the well was intact or undamaged between these depths.

The conductivity log of fluids in the well showed a clear boundary between the water and the black substance at approximately 115 feet bgs, as indicated by a rapid change in the

conductivity of fluids. The temperature log shows the gradually decreasing temperature up to a depth of approximately 100 feet, below which the temperature remained generally stable with some small deflections in the curve between 100 feet bgs and the total depth of 146 feet bgs.

The caliper survey recorded a consistent well diameter to approximately 124 feet, the approximate depth of the bottom of the PVC casing in the well. Between 124 and 127 feet, the well transitions from a 4-inch to a 2-inch diameter; the transition does not appear to be smooth on the caliper log. It is believed that this corresponds to the transition from a 4-inch diameter PVC casing to a 2-inch diameter open rock core, which extends between 127 and 146 feet bgs. A deflection in the caliper curve, indicating a potential fracture, was observable at approximately 137 feet bgs.

After the well survey activities at BR-I were complete, GSI lowered a bailer to the depth of the observed black layer at approximately 115 feet bgs. The bailer was coated in and contained the black, oily substance at the depth where it transected the interface. The liquid inside the bailer contained both water and globules of the black, oily substance. A NAPL layer was not clearly defined within the bailer.

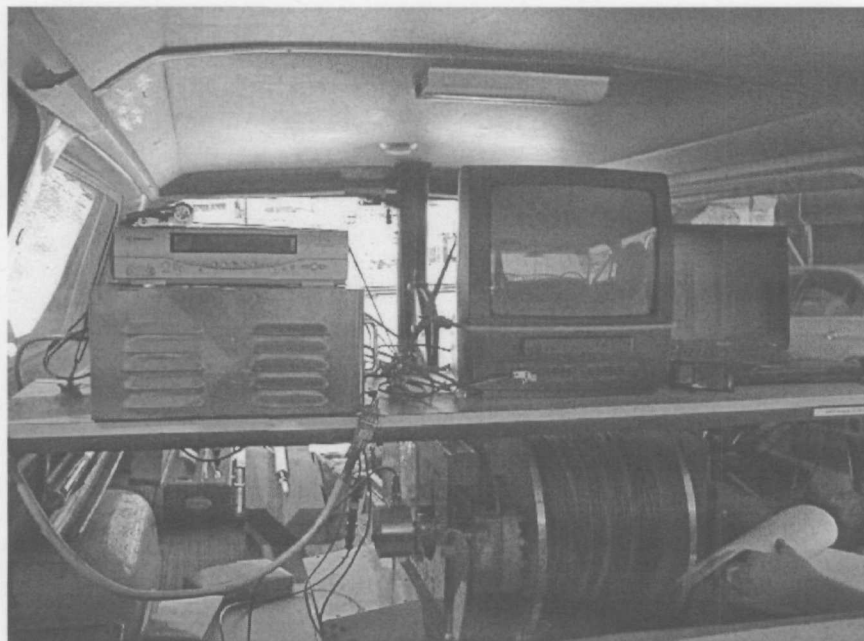
## **Work Anticipated Next Week**

The installation of the one additional piezometer adjacent to BR-I is scheduled to begin on Tuesday October 11.

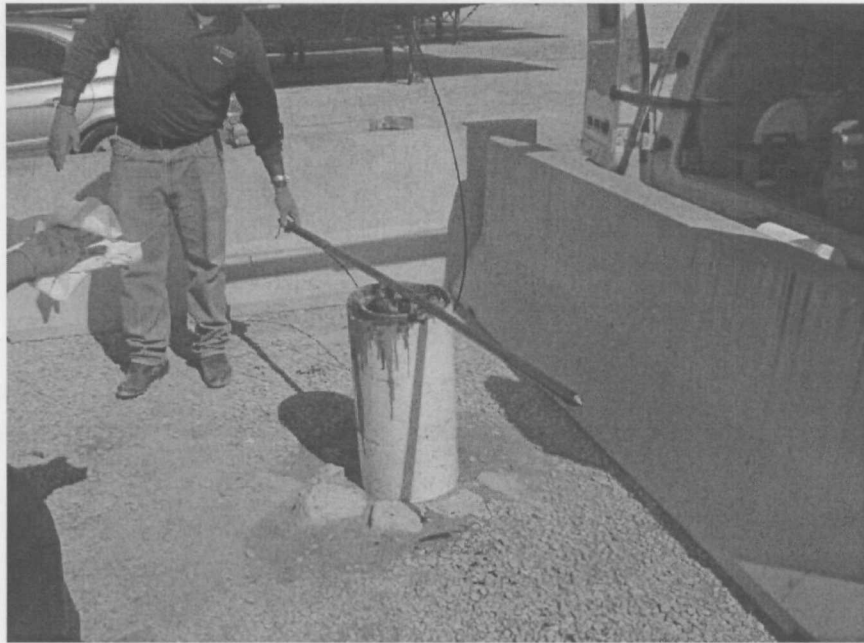
**Photos from October 5, 2005:**



Beginning camera survey at well BR-I Site I, SA1 (October 5, 2005)



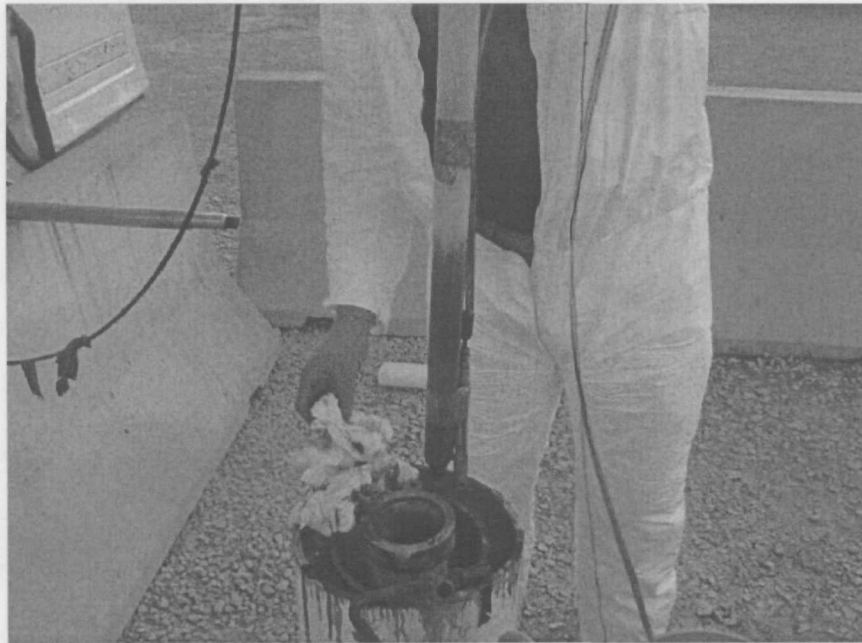
Picture of instruments inside survey truck  
(October 5, 2005)



Picture of caliper being removed from well BR-I at site I, SA1 (October 5, 2005)



After completion of sonic logging at BR-I Site I, SA1 (October 5, 2005)



Bailer with sample from top part of black liquid at approximately 115 feet bgs. Bailer coated inside and out with black, oily substance (October 5, 2005)